Proposal for greening with environmental-friendliness

Evergreen Kirinsou Association
What is the Sedum Kirinsou?

It grows naturally in various areas of Japan and Asia.

Evergreen Kirinsou
Newly developed patent plant
Feature of Kirinsou

1. Strong in the hot and also in the cold.

2. Strong in dryness and also in excessive moisture.

3. Low maintenance

(Only a little water is necessary for planting. Natural rainfall is enough in Japan. Cropping is not required unlike lawn.)
Feature of Kirinsou-1

Strong in the hot and also in the cold.

The other plant withers due to the hot.
Kirinsou grows up energetically.

Survivable temperature -40°C ~ +50°C

Examination of passing the winter in the VT, United States
The lowest temperature -40 degrees
Feature of Kirinsou-2

Strong in dryness and the excessive moisture.

After one month of no soil and no water, above is a state which Kirinsou is alive without withering.

The environment which the root is under water is OK. It is alive. The root does not rot.

Even if it does not rain for three months, Kirinsou is survivable in Japan.
Feature of Kirinsou-3

Low maintenance

(Only a little water is necessary for planting. Only natural rainfall is enough in Japan. Just a few fertilizer is necessary. Cropping is not required unlike lawn.)

The maintenance expense is very cheap compared with other plants such as lawn.
The general **problems** of greening which Kirinsou bag method solves
(details are to be explained later)

1. The soil flows out.
2. The weed invades.
3. The gardening construction is difficult.
The soil flows out because of the strong wind and the heavy rain.
The general problem of greening-2

The weed invades.

The weed cannot be prevented from invading. The maintenance fee increases.
The general problem of greening-3

The gardening construction is difficult.

Gardening construction by specialists is necessary. The amateur cannot construct it.
The problems of greening are solved by Kirinsou.

1. The soil erosion is prevented.
2. The weed is prevented from invading.
3. The gardening construction is easy.
Solution-1

Evergreen Kirinsou bag method

1. The soil erosion is prevented.
2. The weed is prevented from invading.

This special bag for Kirinsou is Patented item in Japan.
Solution-2
Evergreen Kirinsou bag method

The gardening construction is easy.

It is possible to set it up easily.
The junior high school students can also do it very easily.
Advantages of Greening by Kirinsou

1. Expansion of green areas against desert
   - Kirinsou can survive even in dry environments, it can expand green areas -

2. Moderation of global warming
   - Contribute to moderation of global warming by CO2 reduction -

3. Keep cooling buildings and houses in summer and keep warming in winter
   - Kirinsou moderates variation of temperature -

4. Aesthetic Effects
   - Create aesthetic scenes and relax people -

5. Protection of buildings and houses
   - Prevent deterioration of buildings and houses caused by acid rain, ultraviolet light, variation of temperature, etc.
Effects of roof greening with Kirinsou to temperature inside study room (Maebashi No4. junior high school)

Roof greening cooled a study room.
Temperatures in summer season on concrete surface with and without greening

Red: temperature under soil with greening
Blue: temperature on concrete surface without greening

Periods

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By greening, change of temperature is to be mild, which contributes to reduction of cooling/warming expenses.
Process of greening dry areas

NG ① → ④ rapid change is impossible
OK ①→②→③→④ step by step process brings greening and contributes to preserving water

Rain fall

Clouds are easy to be generated, which causes rain fall

CLOUD

Evaporation

Interfusion

1. Ground plant which is tolerable to Dryness and is kept green is necessary.
2. Some method which sand does not move is necessary
3. Some method to reduce water evaporatio is necessary.

KIRINSOU Bag suits those requirements perfectly.
Proposal of a new company which links Botswana and Japan

Involvement of Botswana government is indispensable anyhow.

CEDA

Sales and distribution entity in Botswana (Botswana Government and/or Organization supported by the government)

New Co. (HQ would be in Botswana)
Introduction of Kirinsou to Botswana

Medical Inspection

6 months

Trial Planting

6 months~1 year
Verify adaptability of Kirinsou to Botswana
- Temperature
- Humidity
- Quality of soil
- etc.,

Prevailing and Commercial Sales in Botswana (possible export to other countries in future).
Also possible production in Botswana.
Kirinsou projects schedule

Year 1

- Pass quarantine
- Trial planting
- Establish logistic and sales network (by Botswana Sales Company)
- Acquire supports (including finance) from Botswana and Japan governments,

Year 2

- Planting in Botswana starts
- Sales in Botswana

Year 3

- Exports to other companies (Africa, Europe, etc.,) from Botswana
Patent matters


- Needs patent registration in Botswana and also in other countries.
Examples by Kirinsou in Japan

Rooftop gardening
Examples by Kirinsou in Japan

Slanted roof greening
Examples by Kirinsou in Japan

Greening on wall
Examples by Kirinsou in Japan

Greening in dam

Before

After
Examples by Kirinsou in Japan

Greening of freeway
Examples by Kirinsou in Japan

Greening of roads
Examples by Kirinsou in Japan

Nuclear plant

Greening of concrete slopes
Examples by Kirinsou in Japan

Photovoltaic power plant

The power generation efficiency goes up, and prevention of weed invasion.
Export to UAE, Oman and other countries is under planning.

Proving test  Cooperation with university

Urban area  Suburbs area
Greening of facilities  Anti-Desertification measures
View in the future (Worldwide)

EXPO 2020
DUBAI, UAE

Greening of facilities to be constructed newly by EXPO 2020.
Expanding applied area (Japan)

Tohoku revival support project started
Expanding applied area (Japan)

The TOKYO Olympics in 2020

Greening of facilities to be constructed newly by Tokyo Olympic 2020.
You are welcome at any time.

It is 75 minutes by airplane from Tokyo.
Taito City Office (Tokyo)
Sample garden.

The visit is free.
10:00AM-4:00PM of weekday

You are welcome at any time.

Many kinds of plants including Kirinsou are exhibited.
Kirinsou in Exhibition.

Smart Community Japan 2015 Invitation

6/17 ~ 6/19
Tokyo Big sight

Integrated exhibition of new city planning that the next generation energy brings
END